

Title (en)
METHOD FOR MANUFACTURING COLD-ROLLED STEEL SHEET, AND MANUFACTURING FACILITY

Title (de)
VERFAHREN ZUR HERSTELLUNG EINES KALTGEWALZTEN STAHLBLECHS UND HERSTELLUNGSANLAGE

Title (fr)
PROCÉDÉ DE FABRICATION D'UNE TÔLE D'ACIER LAMINÉE À FROID ET INSTALLATION DE FABRICATION

Publication
EP 4306230 A1 20240117 (EN)

Application
EP 21939385 A 20211215

Priority

- JP 2021077081 A 20210430
- JP 2021046322 W 20211215

Abstract (en)
A manufacturing method of a cold-rolled steel sheet according to the present invention is a manufacturing method of a cold-rolled steel sheet in which method a transverse-type full-width heating device that heats a steel sheet over an entire area in a width direction of the steel sheet, and a cold rolling mill that is arranged on a downstream side in a rolling direction with respect to the transverse-type full-width heating device and that rolls the steel sheet are used, the method including: a step of heating the steel sheet by using the transverse-type full-width heating device in such a manner that temperatures of end portions in the width direction becomes higher than a temperature of a central portion in the width direction of the steel sheet on an entry side of the cold rolling mill.

IPC 8 full level
B21B 1/22 (2006.01); **B21B 37/74** (2006.01); **B21B 45/00** (2006.01)

CPC (source: EP KR US)
B21B 1/22 (2013.01 - KR US); **B21B 37/74** (2013.01 - EP KR); **B21B 45/00** (2013.01 - KR); **B21B 45/004** (2013.01 - EP); **B21B 2001/221** (2013.01 - KR US)

Designated contracting state (EPC)
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)
BA ME

Designated validation state (EPC)
KH MA MD TN

DOCDB simple family (publication)
EP 4306230 A1 20240117; CN 117241899 A 20231215; JP 2022170841 A 20221111; JP 7111216 B1 20220802; KR 20230160928 A 20231124; MX 2023012623 A 20231108; TW 202243766 A 20221116; TW I799028 B 20230411; US 2024189881 A1 20240613; WO 2022230230 A1 20221103

DOCDB simple family (application)
EP 21939385 A 20211215; CN 202180097473 A 20211215; JP 2021046322 W 20211215; JP 2021077081 A 20210430; KR 20237037081 A 20211215; MX 2023012623 A 20211215; TW 110148476 A 20211223; US 202118286881 A 20211215